

REMARKS

Claims 1-13 are pending in the present application. In the outstanding Office Action, claims 1-13 have been rejected under 35 U.S.C. § 103.

Claims 1-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang (U.S. Patent No. 4,238,299) in view of Baburek (EP 55679 A). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2143. Applicants respectfully submit that a *prima facie* obviousness does not exist with regard to the claimed invention.

Claim 1 and 13 both provide, in pertinent part, “a boron-nickel coating in a dispersion bath containing boron, and during the coating process, at least from time to time, a relative movement is produced between the surface to be coated and the dispersion bath.” Wang does not disclose the method for coating a shielding element as claimed in claims 1 and 13.

Wang teaches and suggests a method of producing a tubing containing boron carbide particles embedded in a copper matrix. In particular, Wang teaches and suggests the boron carbide particles 26 are introduced through the funnel 14 while agitating the electrolyte with the stirrers 16. *A stirrer 16 is stopped to allow carbide particles 26 to settle onto the surface of the tube 18 while electroplating proceeds.* As the copper level rises, particles 26 become entrapped in a growing composite layer 30 (Figure 2b). Electroplating proceeds until

substantially all of the particles 26 are incorporated (Figure 2c), then a finish coat 32 of pure copper may be applied (Figure 2d). Accordingly, an outer coating 34 is formed on the surface of the tube 18 and consists of a composite layer 30 interposed between the upper copper film 32 and the lower copper film 28. See Col. 3, lines 19-41. In summary, Wang teaches forming a stack structure of three layers: a lower pure copper film, boron carbide layer, an upper pure copper film, and then **stopping** agitation to allow the particles 26 to settle onto the surface to allow for the electroplating process to occur. See Col. 3, lines 29-31.

In contrast, Claims 1 and 13 provide, in pertinent part, that “*during the coating process, at least from time to time, a relative movement is produced between the surface to be coated and the dispersion bath.*” (Emphasis supplied.) Claims 1 and 13 state that **during** the coating process there is relative movement from time to time. Claims 1 and 13 do not provide for stopping the relative movement to allow the coating process to occur as taught by Wang; rather, the coating process occurs during the relative movement that occurs from time to time.

Baburek also does not teach or suggest, “*during the coating process, at least from time to time, a relative movement is produced between the surface to be coated and the dispersion bath*” as claimed in Claims 1 and 13. Baburek discloses a box for underwater storage of irradiated nuclear fuel assemblies. Baburek’s box includes a coating (I) consisting of boron carbide particles embedded in a nickel binder and a continuous layer (II) of nickel which covers the coating (I). Baburek teaches forming the coating (I) *by a plasma torch using boron carbide powder grains coated with nickel* in a maximum thickness of 2mm,

preferably 1mm. Baburek teaches using boron carbide powder grains coated with nickel, and using a plasma torch in forming a coating. Baburek fails to teach or suggest the use of a dispersion bath and producing a relative movement between a surface to be coated and a dispersion bath.

Moreover, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine references to make the claimed invention. Clearly, Wang teaches away from the claimed invention, in that stirring should be stopped to allow the boron carbide particles settle onto the surface of the tube while electroplating proceeds. Similarly, Baburek teaches away from the claimed invention, in that a powder form of boron carbide coated with nickel is applied onto a surface by a plasma torch, and such a powder form necessarily excludes a relative movement between the powder and the surface. Accordingly, the obviousness rejection should be withdrawn and claims 1 and should be allowed. Claims 2-12 include all of the limitations of Claim 1 and thus, claims 2-12 should also be allowed.

For at least the foregoing reasons, the obviousness rejection of claims 1-13 is improper, thus reconsideration and withdrawal thereof is respectfully requested.

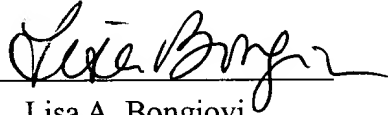
It is believed that the foregoing remarks fully comply with the Office Action and that the claims are allowable to Applicants. Accordingly, reconsideration and allowance is requested.

The Examiner is invited to contact Applicants' attorney at the below-listed phone number regarding the present response or otherwise concerning the instant application.

If there are any charges due with respect to this Response or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,
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